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Amendments to the Claims: This listing of claims will replace all prior versions, and listings, of claims in the application

Listing of Claims:

Claims 1-29 Canceled

30. (New) A curtain coater for coating a substrate which is moved, comprising:
a nozzle device for generating a curtain of at least one coating fluid falling onto the substrate; and
a curtain guiding structure comprising a guiding face which laterally guides the curtain;
wherein the guiding face is convex to the curtain over a width which, measured crossways to the curtain, exceeds the curtain thickness.
31. (New) The curtain coater according to claim 30, wherein the guiding face is curved crossways to the curtain.
32. (New) The curtain coater according to claim 30, wherein the guiding face is a cylindrical face.
33. (New) The curtain coater according to claim 30, wherein the guiding face forms an arc over its width which exhibits a curvature radius along the arc of at least 5 mm throughout.
34. (New) The curtain coater according to claim 30, wherein the guiding face forms an arc over its width which extends over an arc angle of at least 60° and less than 180°, wherein when the curvature radius is variable along the arc, the arc angle is related to the arithmetical mean curvature radius and, if the curvature radius is constant, is related to said curvature radius.
35. (New) The curtain coater according to claim 30, wherein the guiding face is curved convexly over its width, with a curvature radius of at least 5 mm and at most 50 mm.
36. (New) The curtain coater according to claim 30, wherein the curtain guiding structure comprises a pipe.

37. (New) The curtain coater according to claim 30 further comprising a fluid supply connected to the curtain guiding structure and configured to supply an auxiliary fluid to the guiding face.

38. (New) The curtain coater according to claim 37, wherein the curtain guiding structure has a hollow profile comprising a hollow space and a shell surrounding the hollow space which is permeable to the auxiliary fluid in at least a circumferential segment forming the guiding face.

39. (New) The curtain coater according to claim 38, wherein at least the circumferential segment of the curtain guiding structure consists of a porous material.

40. (New) The curtain coater according to claim 38, wherein the curtain guiding structure is sealed against penetration by the auxiliary fluid at least over a part of the shell that does not form the guiding face.

41. (New) The curtain coater according to claim 37, wherein the auxiliary fluid forms a border coat film which wets the guiding face and exhibits a boarder coat current velocity due to its own weight which corresponds to a fall velocity of the curtain, at least over a large extent of the guiding face.

42. (New) The curtain coater according to claim 38, wherein the curtain guiding structure consists of a porous material which is permeable to the auxiliary fluid and has a wall thickness that varies at least in an area forming the guiding face such that a fall velocity of the auxiliary fluid corresponds to a fall velocity of the curtain.

43. (New) The curtain coater according to claim 30, wherein the curtain guiding structure is supported on a coordinate table such that it can be adjusted relative to the nozzle device.

44. (New) The curtain coater according to claim 30 further comprising a suction means and a separating means protruding into the curtain are provided below the guiding face, in order to capture a fluid flowing down the guiding face over the substrate and to suck away the captured fluid.

45. (New) The curtain coater according to claim 44, wherein a suction opening of the suction means is defined between the separating means and the guiding face or a face of a holder of the guiding face elongating the guiding face.
46. (New) The curtain coater according to claim 44, wherein a gap is defined between the separating means and the substrate, wherein the gap narrows from an inward end of the separating means protruding into the curtain toward a narrowest point and thereafter expands from the narrowest point toward an outward portion of the separating means spaced from the curtain.
47. (New) The curtain coater according to claim 30, wherein the nozzle device comprises:
a nozzle surface inclined to the horizontal;
an exit opening through which the coating fluid can be supplied to the nozzle surface such that the coating fluid forms a downward-flowing film current on the nozzle surface;
a nozzle lip which forms a downstream end of the nozzle surface; and
a nozzle side boundary for laterally restricting the film current.
48. (New) The curtain coater according to claim 47, wherein the nozzle side boundary exhibits a height relative to the nozzle surface, between the nozzle lip and a point upstream of the nozzle lip, which at least substantially corresponds to a respectively local thickness of the film current, such that the film current is prevented from flowing over the nozzle side boundary and coating fluid of the film current is prevented from being drawn up the nozzle side boundary.
49. (New) The curtain coater according to claim 48, wherein the nozzle side boundary exhibits a height relative to the nozzle surface which at least substantially corresponds to a respectively local thickness of the film current, from the exit opening as far as the nozzle lip.
50. (New) The curtain coater according to claim 48, wherein the nozzle device comprises a number of exit openings for coating fluids, in succession in the current direction of the film current, in order to be able to form a multiple-coat film current on the nozzle surface, and wherein the nozzle side boundary exhibits a height relative to the nozzle surface which at least substantially corresponds to a respectively local thickness of the film current from the nozzle lip to at least the most downstream of the exit openings.

51. (New) The curtain coater according to claim 48, wherein the nozzle device comprises a number of exit openings for coating fluids, in succession in the current direction of the film current, in order to be able to form a multiple-coat film current on the nozzle surface, and wherein the nozzle side boundary exhibits a height relative to the nozzle surface which at least substantially corresponds to a respectively local thickness of the film current from the nozzle lip to at least the most upstream of the exit openings.
52. (New) The curtain coater according to claim 47, wherein the nozzle device comprises a fluid supply by means of which an auxiliary fluid can be supplied to the nozzle side boundary in order to form a lubricating film of the auxiliary fluid, which separates the film current from the nozzle side boundary, at least in a longitudinal section of the nozzle side boundary.
53. (New) The curtain coater according to claim 52, wherein the nozzle side boundary comprises a wall structure which is permeable to the auxiliary fluid and connected to the fluid supply.
54. (New) The curtain coater according to claim 53, wherein the permeable wall structure is formed from a porous material.
55. (New) The curtain coater according to claim 52, wherein the lubricating film is formed downstream of the exit opening or a most downstream exit opening of a number of exit openings.
56. (New) The curtain coater according to claim 47, wherein an upper periphery of the nozzle side boundary is formed as an edge with an enclosed edge angle of at most 90°.
57. (New) The curtain coater according to claim 47, wherein an upper periphery of the nozzle side boundary is formed as an edge with an enclosed edge angle of at most 80°.
58. (New) The curtain coater according to claim 56, wherein the edge angle measures at least 30°.

59. (New) The curtain coater according to claim 30, wherein at least one suction nozzle is arranged at at least one of two peripheries of the coated substrate, for sucking away a peripheral bulge of the coating fluid deposited on the substrate.
60. (New) A curtain coating method, comprising:
depositing, in a free-falling manner, a curtain of at least one coating fluid on a moving substrate; and
guiding each side of the curtain with a guiding face which is convex crossways to the curtain.
61. (New) The curtain coating method according to claim 60 further comprising providing an auxiliary fluid along the guiding face.
62. (New) The curtain coating method according to claim 60 further comprising removing a peripheral bulge of the coating fluid from the substrate.